

SOL LYNN/ INDUSTRIAL TRANSFORMERS HOUSTON, HARRIS COUNTY, TEXAS

Other Names: Industrial Transformer Site,
Industrial Transformers (Sol Lynn)

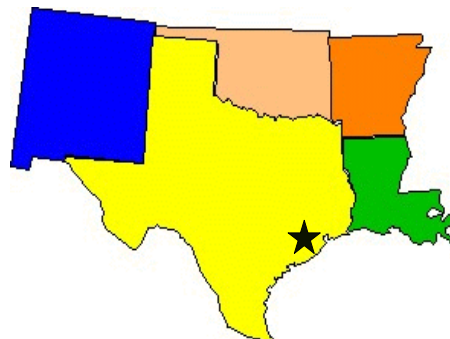
EPA REGION 6

EPA ID# TXD980873327

Site ID: 0602954

CONGRESSIONAL DIST. 25

Fact Sheet Updated: June 29, 2005



Site Description

- Location:** •The site is located at 1403, 1415, 1417, 1419 S. Loop 610 West in Houston, Harris County, Texas.
- Population:** •Approximately 2,100 persons live within one mile of the Site.
•The greater Houston metropolitan area is one of the 10 largest cities in the nation.
- Setting:** •The Houston Astrodome/Astrodomain recreational facility is within ½ mile of site.
•Four Houston city water wells and four private water wells which serve more than 10,000 persons are within three miles of this site.
•These wells are screened at depths exceeding 700 feet.
•The site is a former wire and transformer reclamation facility
•PCBs and solvents were dumped on-site over a 1-acre area during these operations.
- Hydrology:** •The site is within Texas Gulf Coastal Plain, underlain by the Chicot and Evangeline Aquifers.
•Shallow ground water is found at a depth of about 30 feet.

Wastes and Volumes

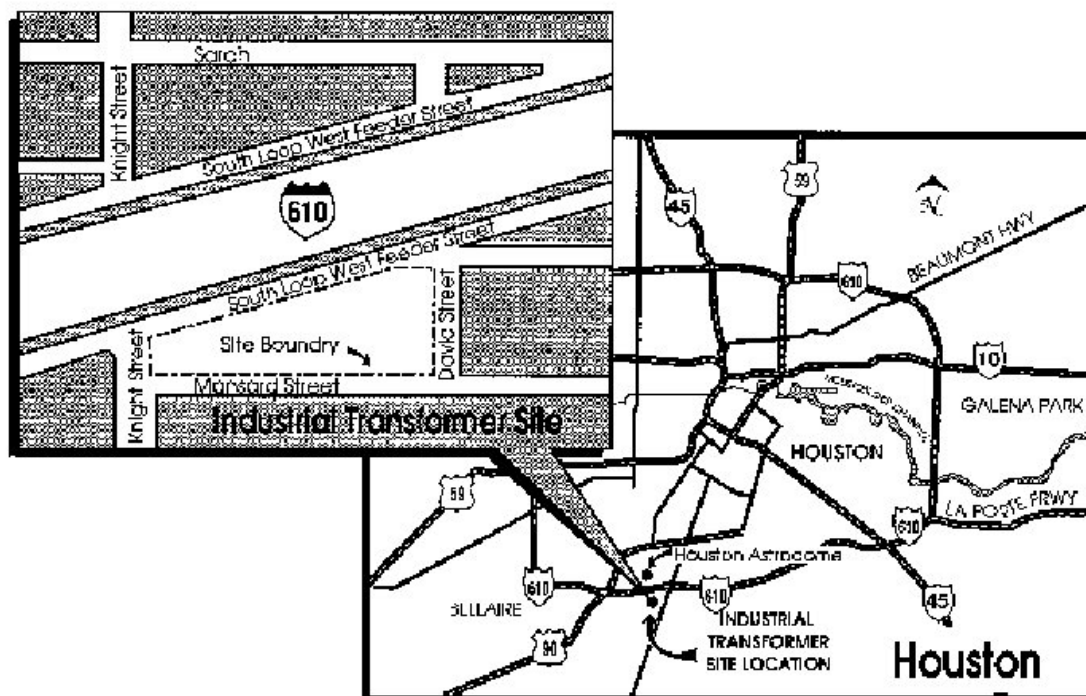
- The principal pollutants at the Industrial Transformers/Sol Lynn site include trichloroethylene (TCE) in ground water up to 790 parts per million (ppm) and in soils and up to 600 ppm, and polychlorinated biphenyls (PCBs) in soils ranging to 357 ppm.
- Approximately 2,400 cubic yards of soil and 4.2 million gallons of ground water are contaminated with site wastes; ground water contamination in the 90-foot zone has not been determined.

Site Assessment and Ranking

NPL LISTING HISTORY

Site HRS Score: 39.65
Proposed Date: 10/15/84
Final Date: 3/31/89
NPL Update: No. 2

Site Map and Diagram



The Remediation Process

Site History:

- Metals reclamation operations (scrap metals and electrical transformers) were conducted at the site by the owner/operator, Sol Lynn, from 1965 to 1975.
- The owner/operator of a chemical supply business, Ken James of Sila-King, leased the 1415 property from Sol Lynn from 1975 until 1981.
- During February through April 1989, the Potentially Responsible Party (PRP) fenced the site to limit direct access to hazardous chemicals and subsequently removed contaminated surface soils.
- Remediation of the Ground Water began in October 1993; however, numerous leaks occurred in the recovery well lines, compounded by other required system modifications, necessitated that the treatment plant and the contract treatment operations be shutdown in October 1996.
- Maxim Engineering & Environmental, the remediation treatment contractor, has been closed out effective September 1996.
- TCEQ issued the Notice of Award on 4/24/98 to WRS Infrastructure & Environmental in the amount of \$386,650.00 for piping replacement from recovery wells to treatment plant, includes thirteen new monitoring wells, converting 5 existing monitoring wells to new recovery wells and other work activities.

Health Considerations:

- Ingestion of TCE from ground water poses a risk to human health.
- Site soils and drainage pathways are contaminated by PCBs and TCE.

Other Environmental Risks:

•The site is located within ½ mile of the Astrodome, Astroworld Amusement Park, several industrial plants, and apartment complexes frequented by the local population and tourists. However, there are no known exposure pathways to any potential receptors.

Record of Decision

Signed: March 25, 1988 (Source)
Amended: September 30, 1992

September 23, 1988 (Ground Water)
Amended: September 30, 2004

Ground Water:

- The initial ground water Record of Decision (ROD) selected pump-and-treat as the remedial technology.
- The Amended ground water ROD selected in-situ bioremediation with monitored natural attenuation as the remediation technology.
- The Texas Commission On Environmental Quality (TCEQ) -formerly Texas Natural Resource Conservation Commission (TNRCC); and prior known as the Texas Water Commission (TWC) previously served as the lead agency on implementation of this remedy. EPA is currently the lead agency.

Soil Treatment:

- Chemical Dechlorination was initially chosen as the Source Control remedy; a process whereby contaminated soils are mixed with chemical reagents to remove halogenated organic compounds.
- During pilot/bench testing, the technology performed well; however, upon application in the field, the process could not be effectively implemented at the Sol Lynn site.
- The Source Control remedy was thus revised in September 1992, and excavation and off-site disposal was chosen and initiated as a final soil cleanup method for the site.

Other Remedies Considered

Ground Water:

1. No Action
2. Collection and Off-site Disposal
3. Deep Well Injection
4. On-site Carbon Adsorption
5. On-site Catalytic Dehydrochlorination and Discharge

Reason Not Chosen

Does not meet statute, does not remedy problem
Does not meet SARA's preference for treatment;
Transportation is expensive
Does not meet SARA's preference for treatment
Technical feasibility questioned and Discharge
Expensive; technical feasibility questioned

Other Remedies Considered

Source Control:

1. No Action
2. Off-site Landfill
3. Stabilization and Offsite Landfill
4. In-Situ Vitrification
5. Onsite Incineration

Reason Not Chosen

Doesn't remedy problem
Not SARA preference (Alternate Remedy)
Not SARA preference, large volume increase
Questionable technically
State objects due to close proximity to Astroworld and

- 6. Off-site Incineration
- 7. Biological Treatment

Astrodome
Cost prohibitive
Questionable technically

Community Involvement

- Community Involvement Plan: Developed 12/85, revised 4/89
- Open houses and workshops: 1989, 4/91, 7/91
- Original Proposed Plan Fact Sheet and Public Meeting: 2/88 (Source), 8/88 (Ground Water)
- Original ROD Fact Sheet: 5/88 (Source), 10/88 (Ground Water)
- Milestone Fact Sheets: Numerous 1988 press releases (6), 8/89, 2/90, 7/91 (PRPs), 9/92
- EPA Amended Proposed Plan and Public Meeting held : 9/92
- Amended ROD Fact Sheet: 12/92
- Citizens on site mailing list: 104
- Constituency Interest: Generally a low level of interest- air stripping and chemical dechlorination activities prompted numerous complaints about odors.
- Site Repository: (1) Houston Central Library
Texas & Local History Division, Julia Ideson Building,
500 McKinney Street
Houston, TX 77002
- (2) EPA's Region 6
Dallas, Texas; Please call first,
Contact 1(800) 887-6063 for file viewing information and hours open
or written request through Freedom of Information Act (FOIA),
FOIA Officer, Jerva Duram:
1445 Ross Avenue, Dallas, Tx. 75202
- (3) Texas Commission On Environmental Quality (TCEQ), Austin, Tx. :
Contact: Telephone (512) 239-2920 for file viewing information and hours open;
TCEQ -Records
Mail Code 199 , Building D,
P.O. Box 13087, Austin, Texas 78711

Technical Assistance Grant

- Availability Notice: 4/89
- Letters of Intent Received:
 - 1) LIFT Endowment Fund, Inc. - 2/8/90 (withdrawn)
- Final Application Received: None
- Grant Award: N/A
- Current Status: No apparent citizen interested in applying for the grant.

Contacts

- RPM (EPA):** Ernest R. Franke, PE; 214-665-8521; and M. Gary Miller, PE; 214-665-8318; 6SF-AP
- State Contact:** (TCEQ) Project Manager, Carol Dye, P.G., 512/239- 1504
- Community Involvement:** Phyllis June Hoey, CIC, 214-665-8522, 6SF-PO
- Regional Public Liaison (EPA):** Arnold Ondarza , 303-312-6777
- Attorney (EPA):** James L. Turner, 214-665-3159, 6SF-DL
- State Coordinator (EPA):** Karen Bond, 214-665-6682, 6SF-AP
- **Prime Contractor(s):** Supplemental RI/FS is Tetra Tech EMI, Inc., EPA's Contractor

Present Status and Issues

- First 5-Year review was signed 11/23/99 . In November 1999 EPA's findings were that the ground water remedy might not be protective of public health and the environment EPA staff were directed to initiate and undertake a Supplemental RI/FS to determine whether additional remedial action should be implemented.
- Federal Lead - RI/FS by Response Action Contract (RAC) began 12/07/99 which began site characterization with scheduled follow-up actions to evaluate remedial alternatives.
- Because of the high concentrations of the TCE contaminant in the various site aquifer wells, EPA has conducted a supplemental Remedial Investigation and Feasibility Study (RI/FS) to characterize the site contaminants and evaluate supplementary groundwater remedial alternatives.
- The RI/FS field activities began October 30, 2000 and all field activities were complete May 18, 2002.
- Characterization required 165 site monitoring wells that were sampled under RAC and analyzed by Houston EPA Lab. Analytical results have been provided to the technical EPA team, including Modeler, Dr. Ron Arnett, contractor for the Las Vegas, EPA Lab.
- Dissolved oxygen and hydrogen sampling have been conducted to aid in the determination of degradation rates of the chlorinated solvents(TCE) on sites.
- The collection of core samples was performed from selected zones in the aquifer for bench scale testing for degradation rates. The combination of both laboratory data and field evidence of the geochemical environments will help determine appropriate degradation rates for the dissolved chlorinated solvents.
- A site pump test been conducted to determine hydraulic properties of the water bearing zones which were used in the ground water modeling of the site.
- Data evaluation and site modeling results was received in September 2002
- Final supplemental RI, dated December 2002, submitted to site repositories.
- Work plan for business air monitoring, private well plugging and new cluster monitoring wells are due in April 2003 and upon receipt and agreement of the contractor's work plan, notice to proceed by a Work Assignment form were issued.
- Air monitoring of seven business were complete on June 4 & 5 2003, the private contaminated well was plugged on May 5th & 6th, 2003, and drilling, development and testing of seven cluster wells south of the site were completed in June 2003; the data results on both air test and seven well sampling were completed in July 2003.
- RI/FS final completion date was extended to September 30, 2003 to accommodate these added field activities and incorporate the technical laboratory data and the plume delineation limits.
- Air Monitoring of Businesses for TCE contaminant has been conducted and the risk assessed by EPA.
- Final supplemental FS, dated October 2003, submitted to site repositories.
- The amended Proposed Plan was finalized on April, 2004, Public 30 day comment period was issued.
- The Proposed Plan issued, no comments received.
- Amended ROD by EPA was signed September 30, 2004 which established in-situ remediation as the remedy.
- The Second Five Year Review was signed in December 09, 2004 supporting the RI/FS and amended ROD's findings.
- The Remedial Design Statement of Work dated April 05, 2005, has been reviewed by EPA and its RAC's Contractor's has completed and submitted the revised site Schedule dated 6/27/05. Upon approval by EPA of the work plans, the RD activities will be underway. The current RD is scheduled for completion December 22, 2005 per submitted revised schedule.

Benefits

- Remedial activities at the Industrial Transformers/Sol Lynn Superfund site will mitigated the threat from site wastes for 2,100 people living and working within one mile of the site.
- The Source Control remedy removed over 2,700 cubic yards of PCB/TCE-contaminated soil which has been treated and/or removed.

- In-situ treatability study of the higher TCE contaminant concentration areas in the upper three groundwater bearing zones plumes is schedule in this RD activity schedule. Monitored Natural Attenuation (MNA) is the remedial activity scheduled for RD/RA in the remaining groundwater bearing zones of lower concentrated contaminant plume areas.